Listing of the Claims:

A clean listing of the entire set of pending claims is submitted herewith per 37 CFR 1.121(c)(3). This listing of claims will replace all prior versions, and listings, of claims in the application. No claims are amended by this Reply.

1. (Previously Presented) A method, comprising:

providing an organic matrix of electroluminescent organic molecules with embedded quantum dots,

providing one or more transfer molecules on the surfaces of the quantum dots,

supplying electrons and holes to the organic matrix using first and second electrical contacts in electrical contact with the organic matrix,

in response to the supplied electrons and holes, generating excited states in the electroluminescent organic molecules of the organic matrix in the form of excitons,

transferring excitons from the electroluminescent organic molecules to the transfer molecules on the quantum dots, and

transferring excitons from the transfer molecules to the quantum dots.

2. (Previously Presented) The method of claim 1, wherein providing an organic matrix of electroluminescent organic molecules with embedded quantum dots, comprises preparing the organic matrix from a solution of electroluminescent organic molecules and quantum dots.

3. (Previously Presented) The method of claim 1, further comprising confining electrons and holes in the matrix by providing electron and hole blocking layers adjacent to the matrix.

4. (Previously Presented) The method of claim 1, wherein providing one or more transfer molecules comprises a step of providing transfer molecules which have

a bandgap, $E_{transfer}$, which is smaller than a bandgap, $E_{org.\ mol.}$, of the electroluminescent organic molecules and larger than a bandgap, E_{QD}, of the quantum dots.

5. (Previously Presented) The method of claim 1, wherein providing one or more transfer molecules comprises providing phosphorescing transfer molecules.

6. (Previously Presented) The method of claim 1, wherein providing one or more transfer molecules comprises providing transfer molecules so that a transfer rate of excitons from the electroluminescent organic molecules to the transfer molecules is larger than a decay rate of excitons in the electroluminescent organic molecules.

7. (Previously Presented) The method of claim 1, wherein providing one or more transfer molecules comprises providing transfer molecules so that a transfer rate of excitons from the transfer molecules to the quantum dots is larger than a decay rate of excitons in the transfer molecules.

8. (Previously Presented) A device, comprising:

an organic matrix of electroluminescent organic molecules embedded with quantum dots, and

first and second electrical contacts for supplying electrons and holes to the organic matrix,

wherein a quantum dot has one or more transfer molecules attached to its surface for receiving excitons generated in the electroluminescent organic molecules and transferring received excitons to the quantum dot, wherein a transfer rate of excitons from the electroluminescent organic molecules to the transfer molecules is larger than a decay rate of excitons in the electroluminescent organic molecules.

9. (Previously Presented) The device of claim 8, wherein a transfer rate of

excitons from the transfer molecules to the quantum dots is larger than a decay rate of excitons in the transfer molecules.

10. (Previously Presented) The device of claim 8, wherein the electroluminescent organic molecules are electroluminescent polymers.

11. (Previously Presented) A process for fabricating a light emitting quantum dot embedded organic device, the process comprising:

providing a plurality of electroluminescent organic molecules in solution,

providing a solution comprising a plurality of quantum dots with one or more transfer molecules attached to the surfaces, the transfer molecules having a bandgap, $E_{transfer}$, which is smaller than a bandgap, $E_{org.\ mol.}$, of the electroluminescent organic molecules and larger than a bandgap, E_{QD}, of the quantum dots,

mixing the electroluminescent organic molecule solution with the quantum dot solution,

providing a first electrical contact,

forming a matrix of electroluminescent organic molecules with embedded quantum dots on the first electrical contact by depositing the mixed solution on the first electrical contact, and

depositing a second electrical contact on the matrix.

12. (Previously Presented) The process of claim 11, further comprising forming, between the matrix and the first or second electrode, a material layer for enhancing hole transport and deteriorating electron transport.

13. (Previously Presented) The process of claim 11, further comprising forming, between the matrix and the second or first electrode, a material layer for enhancing electron transport and deteriorating hole transport.